



Californians for Television Access

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Members

- * Independent Living Resource Center of San Francisco
- * Self Help for Hard of Hearing People
- * Deaf Counseling, Advocacy, and Referral Agency
- * California Association of the Deaf
- * California Center for Law and the Deaf
- * Hearing Society for the Bay Area
- * Association of Late Deafened Adults
- * San Francisco Mayor's Disability Council
- * Oakland Mayor's Commission on Disabled Person
- * Gallaudet University Regional Center
- * Bay Area Communication Access
- * KGO TV
- * KRON TV
- * KPIX TV
- * KTVU TV
- * Cheelah Systems
- * Action Caption
- * Bay Area Captioning
- * Mission Peak
- * CTV Captioning
- * Vidiocopy Caption Center
- * California Broadcaster's Association
- * California Office of Emergency Services
- * D.E.A.F. Media

DOCKET FILE COPY ORIGINAL

January 25, 1996

Office of the Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

RECEIVED
JAN 29 1996
FCC MAIL ROOM

Re: Closed Captioning and Video Description of Video Programming

MM Docket Number 96-176
FCC 95-484

To The Commission:

Californians for Television Access ("CAL-TVA") is hereby responding to the Federal Communications Notice of Inquiry, dated December 4, 1995, concerning closed captioning and video description of video programming.

CAL-TVA is a 3-year old coalition of California agencies and organizations serving deaf and/or hard of hearing consumers, television stations, captioning agencies, and representatives from local, state and federal agencies. The coalition was formed to develop a team approach to improving and expanding closed captioning of television programming in California, with emphasis on the captioning of local newscasts and emergency broadcasts. We are proud to say that thanks to our joint efforts, the San Francisco Bay Area is the only known area in the United States where all four network affiliates (ABC, CBS, NBC and FOX) are closed captioning their local news programs, of which three affiliates (KGO, KRON, and KPIX) are using real-time closed captioning and one (KTVU) uses electronic newsroom captioning. All four have contracts to provide real-time captioning of their extended emergency broadcasts.

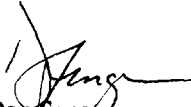
CAL-TVA has served as a resource to television stations both within and outside the state of California, providing information on implementing closed captioned newscasts, securing captioning equipment, and finding a captioning agency. We look forward to expanding the closed captioning of newscasts by local television stations throughout California, and offer our expertise to the FCC in expanding closed captioning of television programming. Our goal is 100% closed captioning of all televised programs.

In response to the FCC's Notice of Inquiry, we offer our comments on the following pages. It should be noted that these comments are the result of soliciting information from various members of our coalition and issuing a consolidated response. The comments submitted herein are supported and endorsed by all members of CAL-TVA listed on this letterhead.

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If there are any questions or if the FCC seeks elaboration or further comment from CAL-TVA, please contact either of the undersigned at the addresses and telephone numbers shown on this letterhead. CAL-TVA appreciates the opportunity to present these comments and applauds the Commission for pursuing this project which will benefit millions of hearing impaired consumers.

Sincerely,


Don Senger

Co-Chair, CAL-TVA


Mary Skyer

Co-Chair, CAL-TVA

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of)
Closed Captioning and)
Video Description)
of Video Programming)

MM Docket No. 95-176
FCC 95-484

NOTICE OF INQUIRY

**COMMENTS OF CALIFORNIANS FOR TELEVISION ACCESS IN THE NOTICE OF INQUIRY
REGARDING CLOSED CAPTIONING AND VIDEO DESCRIPTION**

RECEIVED
JAN 29 1996
FCC MAIL ROOM

To The Commission:

Californians for Television Access is writing in response to your request for comments in the "Notice of Inquiry", FCC 95-484, in the above-mentioned proceeding, released December 4, 1995.

The Commission seeks to assess the current availability, cost, and uses of closed captioning and video description, and to assess what further Commission actions may be appropriate to promote these services. It also seeks comment on the appropriate means of promoting the services wider use in programming delivered by television broadcasters, cable operators and other video programming providers.

Californians for Television Access ("CAL-TVA") is a 3-year old coalition of 28 California agencies and organizations serving deaf and hard of hearing consumers, television broadcast stations, captioning agencies, and representatives from city, state and federal offices. The coalition was formed to develop a team approach to improving and expanding closed captioning of television programming in California, with emphasis on the captioning of local newscasts and emergency broadcasts. It has had extensive experience in promoting,

implementing, and monitoring closed captioning of televised programs at the local level as opposed to national broadcasts.

The following comments represent a joint statement from CAL-TVA coalition members and are hereby listed in orderly sequence and paragraph reference numbers as given in the FCC Notice of Inquiry. In event any comment is unclear or requires further elaboration, please contact CAL-TVA for further information.

PARAGRAPH 11 - Closed Captioning Benefits

The general consensus of organizations serving deaf or hard of hearing people is that there are an estimated 23 to 26 million persons with hearing disabilities, based in part on U.S. Census Bureau data and the fact that a large number of people refuse to acknowledge that they have a hearing loss. Further, these numbers can expect to continue to grow, both due to the aging of our population as well as noise pollution which damages hearing.

It has always been difficult to collaborate estimates of how this figure translates into the degree of hearing loss, e.g.: mild, moderate, severe, severe-profound, profound, and total deafness, because rare studies have varying approaches. Using a report prepared by SHHH-California ("Demographic Statistics Related to Hearing Impairment", Exhibit A), statistics indicate that 9.07% of the general population suffers from some form of hearing loss. Of these, 1.63% are identified as deaf (4 million people) and 7.44% are identified as hard of hearing (18.5 million people). Approximately half of the people identified as hard of hearing have a mild to moderate hearing loss. While these people may use closed captioning as an assistive means of understanding televised programs, it is the remainder of hearing impaired people (severe to total deafness -- approximately 8.5 to 10 million people) who experience the most benefit from closed captioned programming.

CAL-TVA endorses the statement from the Commission on the Education of the Deaf that “captioning of TV ... makes it possible for thousands (*actually “millions” per above*) of deaf and hearing impaired (*“hard of hearing”*) people to gain access to the television medium, thus significantly improving the quality of their lives.” To this, we add that the greatest benefits can come through the closed captioning of local news broadcasts and emergency broadcasts. Independent surveys have indicated that most Americans count on television to provide them a summary of the day’s important news events. Unfortunately for hearing impaired viewers, the vast majority of local newscasts in our country are not captioned. This is an area of great concern and lament among those who are hearing impaired. Only in some major metropolitan centers do local stations broadcast their local news with closed captioning. The need for open and closed captioning of local emergency broadcasts, not only for special bulletins but also for extended coverage and field reports, is of special importance to hearing impaired viewers. Lives and property are at stake, so it is of utmost importance that hearing impaired viewers have the same access to information and emergency instructions given to viewers with normal hearing.

Paragraph 14 - Closed Captioning Availability

The amount of captioned material has increased dramatically over the past 2 years. Networks are now almost entirely closed captioned for all news and entertainment programs. Sports, especially, has been an addition. Syndicated daily programs (i.e.: Oprah, Wheel, Jeopardy) are also captioned after the shows are produced. Over 90% of network primetime programming is now closed captioned. In California, network affiliates in San Francisco, Oakland, Los Angeles, and San Diego have also been active in closed captioning their local programs, particularly in the area of news and sports. It is also notable that while the amount of closed captioned programs remains small, many independent stations are now broadcasting more of their programs with closed captions. Exceptions to these advances are:

- * Some programs from individual syndicators that air only on weekends. In some cases, these producers represent smaller production companies and have not, as yet, recognized the need/or don’t want to spend the money to close caption their programs.

* Most theatrical release movie packages sold to local stations do not have captioning. Since they are not released to the theaters with captioning, the producing companies do not make an effort to close caption their films for television use. If the movie is first sold for network showing, then captioning may be added. Such movies would then become available when sold to local stations as part of a movie package containing several film titles. Most films in local station libraries do not have captioning. Captioning of films for TV, as well as video tapes for rent or retail sale, is an area of concern by hard of hearing consumers as well as network affiliates. It has been reported that only 6% of video tapes available for rental are closed captioned. The national Motion Picture Corporation of America, as one example, is currently working with its members and representatives from organizations serving hearing impaired people to implement a voluntary program where member motion picture producers would include closed captioning on all their new video releases and re-releases. This effort could be expanded to include film packages for television broadcasting.

* Most local programs are not captioned. Generally, this falls into the areas of sports, local news, special reports, and entertainment programs produced by small, local production companies. In addition, where local news is captioned using an electronic newsroom, field reports, sports, weather, and ad libs are not captioned.

Paragraph 18 - Cost Issues

Cost to close caption a program varies in accordance with a number of factors. These factors include whether the program is on tape or live, type of program, and, if a news program, whether real-time captioning or electronic newsroom captioning is used. At the low end, real-time captioning of sports is the least expensive because preparation time is significantly less than for news where vocabulary changes daily. At the high end, pre-

recorded tapes are the most expensive to caption since more time is spent on the accuracy and quality of the captioning.

Electronic newsroom captioning of newscasts is the least expensive means to close caption local news. The equipment required involves a one-time expense of approximately \$10,000, with the principal components being a captioning encoder and a computer with captioning software. In simple terms, electronic newsroom captioning results by feeding the newsroom teleprompt script into the special computer for encoding and transmission. While this arrangement provides satisfactory access for hearing impaired viewers, field reports, ad libs, weather and sports are not captioned since they are not read by the anchors from the teleprompt. This arrangement also requires a person to monitor the transmission of the closed captioning to synchronize it with the audio transmission.

Rates to close caption offline, prerecorded programs vary from company to company, location to location, turnaround time, type of diskette (VHS, Umatic, 1", Beta-SP, or D2) and what the market will handle. Typical rates on the West Coast for captioning a 45- to 60-minute offline program range from \$500 to \$900 with 5 to 7 day turnaround, and from \$2,000 to \$2,700 for 3 to 4 days turnaround. Thirty-second spot commercials can be captioned for as low as \$250 with 5 to 7 day turnaround or for around \$650 with turnaround within 2 to 3 days.

Cost of equipment for offline captioning runs about \$15,000 to \$16,000, not including tape decks for various video formats. Software for editing is about \$4,900. For encoding, hardware costs about \$8,000 and related software is about \$3,000.

Real-time captioning rates range from \$120 to \$1,200 an hour. Usually, the lower rates will result a lower standard of captioning, but the high end rates are not proportionally better. On the West Coast, rates typically range from \$150 to \$350 per hour depending on the size and length of the contract. There is some belief among captioning agencies that the higher rates, for both real-time captioning and offline captioning, are the result of non-profit or not-for-profit companies using government funding to subsidize inflated rates, while proving

broadcasters with competitive rates. Such companies also tend to employ people whose primary job is applying for government funding, thereby increasing administrative costs and, consequently, production costs.

Since broadcasters expect NO failure of service during real-time broadcasts, the equipment required at the captioning studio can be rather astounding. Following are costs of items specific to the captioning industry,

1. Real-time stenotype machine and cables (\$4,000)
2. Caption Encoder (\$4,000 - \$6,000)
3. Software (\$7,000)
4. Uninterrupted power supply (\$600)
5. Phone amplifier/adaptor (\$200)

In addition, the following items, which are available to the general consumer and thus unpriced here, are needed:

6. Computer (486 or better)
7. External modem
8. Printer
9. Sound amplifier
10. Headphones
11. VHF/UHF radio (picks up TV broadcasts when cable or power is out)
12. Power generator (for long-term power outages)
13. VCR
14. External decoder
15. Cellular phone
16. Reference manuals
17. Cable/satellite serve
18. Two TVs (one with captions, one without)
19. Two phone lines per studio

For each of the electronic components such as computers, stenotype machines, etc., a backup is also required. Estimates are a cost of \$30,000 to \$35,000 per studio, with each captioner requiring his or her own studio. Less elaborate real-time captioning facilities can be set up for an estimated \$15,000.

Paragraph 19 - Supply of Closed Captioning

Exhibit B lists 14 captioning agencies approved by the US Department of Education and 69 captioning agencies known by CAL-TVA to be in operation. It should be noted that most captioning agencies have the capability of performing real-time captioning of television broadcasts from most anywhere in the United States, using satellite feeds and/or telephone lines. In addition, court reporters throughout the nation are entering the real-time closed captioning field to provide captioning services for local news and sports events, resulting many new captioning agencies not accounted for in Exhibit B.

The demand for captioning services for television are extremely low relative to the percentage of captioned programming vs. uncaptioned programming. For example, only 4% of basic cable programming is closed captioned (Reed Hundt, Chairman, FCC). At this time, the supply of available captioning services appears to exceed the demand, thus implying adequate competition in captioning services to provide for some equitable means of competitive pricing. We suggest that current government grants for captioning, if continued, be made available to more entities to aid in making these services affordable.

Paragraph 20 - Funding of Closed Captioning

Funding for captioning of local newscasts is provided by the local station itself. The networks fund the captioning of entertainment and their own news/information programs. At the local level, some attempts have been made to underwrite the costs of captioning by selling advertising at the front of newscasts: "Captioning provided as a public service by ... etc." This has had some support but is not always available depending on sponsorship interests.

Almost all other captioning is done by the program producers (encouraged by the local stations) at their own expense -- as a cost of the program's production. It is assumed these costs are recaptured in the sale price of syndicated programs. Network captioning is generally accomplished as a public service by the network; Hollywood production companies comply at the network's insistence.

Paragraph 27 - Application of Mandatory Requirements

Larger production companies now provide captioned programs at the request of networks and local stations. CAL-TVA television station representatives find it difficult to imagine how captioning could be made mandatory, since significant amounts of the original programs produced have a life that is not exclusive to broadcast. Examples would include theatrical movies, foreign release programs, documentaries, specials, pay-per-view. Many of these materials are later released for over-the-air broadcast use -- they may be repackaged as part of a group of programs sold by a program syndicator or distributor, who is not per se a production company. A mandatory requirement would be difficult to enforce (who is responsible, the originator, the seller or the buyer?). It would add to the expense of sale and would shield the burden from the original producers of the material.

CAL-TVA members that serve hearing impaired consumers, however, endorse the concept of having a mandatory closed captioning requirement, to be imposed upon producers of programming that is aired on television. This endorsement stems from CAL-TVA's goal for 100% captioning of all programming broadcast on television and cable.

Paragraph 29 - Access Vs Cost Balance

CAL-TVA is in agreement with the standards suggested in the House bill covering undue economic burden. While we support the requirement to close caption all programs, we also understand that in some instances this requirement could create an undue economic burden on the producer or provider. As the production

of closed captioning becomes more competitive and widespread, we believe that costs to close caption a program will spiral downward and become only a small fraction of the total production cost of a program.

Paragraph 31 - Programs Impractical to Caption

At this time, captioning agencies believe the only programming difficult to real-time caption may be those in foreign language, such as Japanese, Chinese, or Filipino. Canada does provide some captioning in English and French, and a new company was recently formed to provide Spanish captioning. From the viewpoint of offline captioning, there are no known programs that would be impractical to caption.

The principal impact of implementing digital captioning would be to increase the cost due to the added cost of digital equipment and digital tape. Digitally produced programs, such as those on D1, digital betacam are captioned with a unique data inserter manufactured by a British company not widely known of in the U.S.. This equipment is available for approximately \$5,000.

Paragraph 33 - Current Accuracy of Closed Captioning

Accuracy is perhaps one of the most important and controversial issues in the field of captioning, debated by both consumers and providers.

In the area of offline captioning, a controversy revolves around verbatim captioning with no errors in the CC1 channel. Disagreement stems over the misquoted, or edited for reading speed, captioning seen in prerecorded programs such as where the actor says, "What's going on, Bob ..." and the closed captions read, "Hi, Bob." The viewpoint of some captioning companies and consumers is that there is no reason to edit -- and thereby change the meaning of -- captions except in extremely rare circumstances when dialogue overlaps at such a rapid pace that it is technically impossible to display all the captions. The general feeling is that it is not the place of the captioning

company to decide how fast or slow the viewer is capable of reading. If slower speed captions are necessary, they could be placed as a second choice on the CC2 channel, not to interfere with the verbatim captions on CC1. This is a style and access issue, not a practical or technical issue.

The second area of concern is the accuracy of real-time captioning. Errors in real-time captioning occur when the captioner mistrokes a key, has not pre-defined a stroke in their steno dictionary to translate, or omits a word or words due to lack of speed or failure to hear the words correctly. It is rare that even the best captioners in the world will go for an extended period of time in a live program without breaks or prescribed material input without encountering some errors, mistrokes and words not already programmed in their dictionary. Real-time accuracy for live television should be 98% or better.

Credentials or the licensing of captioners is another issue. If the government were to decide to mandate that all programming be captioned by 1997, under the current state of regulation, the industry would be flooded with substandard captioning at cutthroat pricing. There are no known federal or state regulations for captioners. As a result, many people seeking careers in court reporting who are unable to pass entry-level state examinations are flocking to the unregulated captioning industry. It is a fact that broadcast captioning is much more difficult and challenging than court reporting. Consequently, there is a potential for having the most difficult work performed by the least qualified.

The National Court Reporters Association (NCRA) offers several noncompulsory examinations, primarily for speed, and one barely entry-level real-time examination called the Certified Realtime Reporter certificate (CRR). Some captioning agencies require the CRR as a minimum for all their captioners, but also point out that only a small percentage of CRRs make competent captioners. The NCRA might be approached to see if they would assume the responsibility for licensing all captioners. There is some concern by captioning agencies at the thought of the federal government creating and maintaining a program of testing and licensing for captioners, but some acceptance for state regulation. However, only about 60% of the states currently regulate the court reporting

industry and, in some cases, some states are attempting to drastically downsize their current regulation of court reporters.

There is also a related captioning accuracy issue --- monitoring the broadcast transmission. It is not unusual for a closed captioned program to suddenly lose its' captions during the course of the program. Frequently, this happens after commercial or news breaks, where the local television station control room turns off the captioning switch then forgets to turn it back on when the captioned program resumes. Sometimes the captions fail to appear at any point. In other cases, East Coast programs sent by satellite to mid-West and Western states sometimes erroneously omit the captioning in their transmissions. Many control rooms do not monitor the captioning during the broadcast to ensure that the captions are being transmitted and are being displayed properly. In many cases, broadcast station and cable service control rooms don't have TV monitors displaying the closed captions. There is an urgent need for better controls to ensure that the closed captions for captioned programs are properly transmitted from the networks to the local stations, and from the local stations to the public, and a means for the public to make immediate contact with the station or network to call attention to lost or bad closed captioning. There is nothing more frustrating then watching a 2- or 3-hour closed captioned movie and losing the closed captions during the last 15 minutes of the film.

Paragraph 34 - Transition

The model of CAL-TVA serves well in this instance. Working as a team, the initial priority was news bulletin/emergency information. This priority was followed by implementing closed captioning for regularly scheduled newscasts (highest viewing time periods rather than lesser day parts) with emphasis on use of real-time captioning; entertainment/information and then all other programming. This venture was implemented over a 3-year time period within a large and successful Bay Area broadcast market and continues as an on-going project.

A smaller market might have to have some protection as to requirements, as well as some additional time to implement those requirements due to economic conditions. The cost of “live” (“real-time”) captioning does not go down with a decrease in market size, in general terms.

Paragraph 35 - Strategies to Improve Competition

Again, CAL-TVA utilized a local solution and local issues to drive a cooperative result. It is not necessarily true that a meaningful “hearing impaired” community-of-common-interests would exist in other markets. Nor is there any guarantee that the local community would have the energy, resources and agencies existent to provide the same level of coordination and central decision making as exists in CAL-TVA. Partly for this reason, CAL-TVA has been serving as a central resource to aid television stations within and outside of California in implementing closed captioned newscasts, emergency broadcasts and other programming.

Tax deductibility is currently only used as a factor of general business expense at this writing. Any additional tax credit would certainly enhance a local station’s interest in providing captioning and taking on the requisite costs.

Conclusion

CAL-TVA appreciates the opportunity to present these comments and applauds the Commission for pursuing this project which will benefit millions of hearing impaired consumers.

If there are any questions or if the FCC seeks elaboration or further comment from CAL-TVA, please contact the undersigned at the addresses and telephone numbers shown below.

Acknowledgements:

CAL-TVA wishes to acknowledge and thank the following individuals for their assistance in preparing this response to the FCC's Notice of Inquiry:

Don Senger, Co-chair, CAL-TVA; President, Self Help for Hard of Hearing People - California

Mary Skyer, Co-chair, CAL-TVA; Independent Living Resource Center, San Francisco

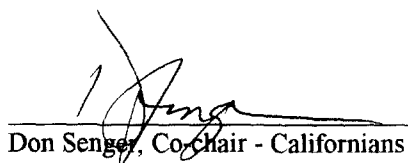
Jim Topping, President & General Manager, KGO-TV

Kevin Daniel, Vice President, Bay Area Captioning, Inc.

Susan Wilhelm, President, CTV Captioning

Pat Henrikson, Manager-Caption Center-Vidicopy

This Response to the FCC Notice of Inquiry is respectfully submitted in original and 4 copies on this 25th day of January, 1996, by Don Senger, Co-chair, Californians for Television Access.



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EXHIBIT A

DEMOGRAPHIC STATISTICS RELATED TO HEARING IMPAIRMENT

[Note: It is very difficult to provide current data on hearing loss because the rare studies have varying approaches. Projections are confused by the increasing rate of loss caused by noise abuse and the aging of the general population. The following is extrapolated from: 1990 Census and (for United States data) Gallaudet University Center for Assessment and Demographic Studies (1987), using National Health Survey, 1985, by the National Center for Health Statistics; (and for California and Bay Area) "Deaf People in California" Delk and Schein, 1983 and California Department of Rehabilitation demographic report of 1983 extended by Department of Finance population estimates of 1/1/92. The results are only reasonably approximate.]

<u>United States</u>	<u>1985</u>	<u>1990</u>
General Population	233,721,000 (100.00%)	248,700,000
Hearing Impaired (all ages)	21,198,000 (9.07%)	22,557,000
Deaf	3,810,000 (1.63%)	4,054,000
Hard of Hearing	17,388,000 (7.44%)	18,503,000
[The accepted estimate for 1994 total Hearing Impaired is 24,000,000]		
Hearing aid owners (users?)	(2.12%)	5,300,000
[Hearing Journal, February 1991, MarkeTrac Survey]		

<u>California</u>	<u>1992</u>
General Population	(100.00%) 30,989,000
Total with <u>identified</u> hearing loss	(6.84%) 2,119,000
Unilateral (limited functional) loss	(3.29%) 1,019,000
"Significant bilateral" loss *	(2.60%) 806,000
Deaf *	(.95%) 295,000

* Assisted communication access is important to 1,100,000 citizens of the state. Based on the Bilingual Courts Study (Federal), it is possible to estimate that some 67,000 of these are dependent primarily upon sign language for communication. These represent about 3% of the hearing impaired population and only 23% of those defined as "deaf". Therefore, sign interpreters are of no value to 94% of those requiring assistance for understanding public speaking:

EXHIBIT B - Page 1

Captioning agencies approved by the US Department of Education Captioned Films/Videos Program:

1. Armour Video & Captioning, 920 Stryker Ave, West St. Paul, Minn 55118 - Offline
2. Caption Center, 125 Western Ave, Boston, MA 02134 - Real-time/Offline
3. Caption It!!, 400 Andrews St, Suite 510, Rochester, NY 14604 - Offline
4. Caption Perfect-Captioning Services, PO Box 12454, Research Triangle Park, NC 27709 - Real-time/Offline
5. Caption Max, 708 N. 1st St, Suite G34, Minneapolis, MN 55401 - Offline
6. Captions, Inc., 2619 Hyperian Ave, Los Angeles, CA 90027 - Offline
7. Closed Captioning Service, Inc., 2215 Oak Industrial Dr, NE, Suite 18, Grand Rapids MI 49505 - Real-time/Offline
8. Henninger Video, 2601-A Wilson Blvd, Arlington, VA 22201 - Real-Time/Offline
9. KUTV-Telescene, PO Box 30901, Salt Lake City, UT 84130 - Offline
10. National Captioning Institute, 1900 Gallows Rd, Suite 3000, Vienna, VA - Real-Time/Offline
11. Pacific Caption Co., 3111 N. Central Ave, Suite 105, Phoenix, AZ 85012 - Offline
12. Pilgrim Imaging, Inc., 1105 Butterworth Court, Stevensville, MD 21666 - Offline
13. Precision Tapes, 911 Second St, Minneapolis, MN 55415 - Offline
14. Vitac, 312 Blvd. of the Allies, Pittsburg, PA 15222 - Real-time/Offline

Captioning Service Vendors

1. Action Caption Inc., 329 Bryant, Suite 3C, San Francisco, CA 94107 - Real-time
2. Advantage Software, 944 entral Parkway, Stuart, FL 34994 - Real-time/Offline
3. Armour Video & Captioning, 920 Stryker Ave, West St. Paul, Minn 55118 - Offline
4. Bay Area Captioning, PO Box 2761, San Ramon, CA 94583 - Real-time
5. Bay Area Video Coalition, 1111 17th St, San Francisco, CA 94107 - Offline
6. Boston Post Productions, 648 Beacon St, Boston, MA 02215 - Real-time/Offline
7. Buyers & Kaczor Reporting Services, 1400 Rand Building, Buffalo, NY 14203 - Real-time
8. California Captioners, 1722 J St, Suite 20, Sacramento, CA 95814 - Real-time
9. Caption Center, 125 Western Ave, Boston, MA 02134 - Real-time/Offline
10. Caption Colorado, 2135 South Cherry, Suite 111, Denver, CO 80222 - Real-time/Offline
11. Caption Graphics, 201 Bonhill Dr, Fort Washington, MD 20774 - Offline
12. Caption It!!, 400 Andrews St, Suite 510, Rochester, NY 14604 - Offline
13. Caption Network, 1535 State St, Salem, OR 97301 - Offline
14. Caption Perfect-Captioning Services, PO Box 12454, Research Triangle Park, NC 27709 - Real-time/Offline
15. Caption Reporters, Inc., 717 D St, NW, Suite 210, Washington, DC 20004 - Real-time/Offline
16. Caption Unlimited, 2424 Magog Rd, Palmyra, NY 14522 - Offline
17. CaptioNation, 14182 Furlong Way, Germantown, MD 20874 - Offline/Transcription
18. Captioned Communication, 445 George St, New Haven, CT 06511 - Real-time/Offline
19. Captioning Resources of Western New York, PO Box 708, Honeoye, NY 14471 - Real-time
20. Caption Max, 708 N. 1st St, Suite G34, Minneapolis, MN 55401 - Offline
21. Captions, Inc., 2619 Hyperian Ave, Los Angeles, CA 90027 - Offline
22. Cardinal Captioning Center, 53 Orange St, Asheville, NC 28802 - Real-time/Offline
23. Center on Deafness, 1900 Grant St, Suite 1010, Denver, CO 80203 - Offline
24. Cheetah Systems, 109 Fourier Ave, Fremont, CA 94539 - Captioning Software
25. Classic Worldwide Productions, 5001 East Royalton Rd, Cleveland, OH 44147 - Real-time/Offline
26. Closed Caption Productions, 834 N. First Ave, Phoenix, AZ 85003 - Real-time/Offline
27. Closed Captioning Service, Inc., 2215 Oak Industrial Dr, NE, Suite 18, Grand Rapids MI 49505 - Real-time/Offline
28. Communication Connections, 410 N. Third St, Malta, IL 60150 - Offline
29. Complete Captions, 5183 Maison Ave, Los Angeles, CA 90041 - Offline
30. Computer Engineering Associates, Inc., 8227 Cloverleaf Dr, Suite 308, Millersville, MD 21108 - Real-time
31. Computer Prompting & Captioning Co., 1010 Rockville Pike, Suite 306, Rockville, MD 20852 - Real-time/Offline
32. CTV Captioning, 170 Pacific Ave, Suite 50, San Francisco, CA 94111 - Real-time/Offline
33. DeBee Communications, 6965 El Camino Real, Suite 105, Carlsbad, CA 92009 - Offline
34. EEG Enterprises, Inc., 1 Rome St, Farmingdale, NY 11735
35. Fast Forward, 1025 Sansome St, San Francisco, CA 94111 - Offline
36. Florida Captioning Service, PO Box 150898, Altamonte Springs, FL 32715 - Real-time
37. Henninger Video, 2601-A Wilson Blvd, Arlington, VA 22201 - Real-Time/Offline
38. Hughes Captioning Service, PO Box 50025, Nashville, TN - Real-time/Offline
39. Hyatt Court Reporting, 1719 Emerson St, Denver, CO 80218 - Real-time/Offline
40. Image Logic Corp., 6807 Brennon Lane, Chevy Chase, MD 20815 - Captioning Equipment. Referrals for Industrial
41. KCET_TV Captioning Center, 4401 Sunset Blvd, Hollywood, CA 90027 - Real-time/Offline

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42. KUTV-Telescene, PO Box 30901, Salt Lake City, UT 84130 - Offline
43. LNS Captioning, 1000 Southwest Broadway, Suite 900, Portland, OR 97205 - Real-time/Offline
44. Maverick Captioning, 2312 Park Ave, Cincinnati, OH - Real-time/Offline
45. Media Captioning Service, 2141 Palomar Airport Rd., Suite 310, Carlsbad, CA 92009 - Real-time
46. Midwest Teleproductions, 3947 State Line Rd., Kansas City, MO 6411 - Offline
47. Mission Peak Captioning, 870 Yakima Dr, Fremont, CA 94539 - Real-time
48. National Captioning Institute, 1900 Gallows Rd, Suite 3000, Vienna, VA - Real-Time/Offline
49. North Country Captioning Service, PO Box 88, Loraine, NY 13659
50. Pacific Caption Co., 3111 N. Central Ave, Suite 105, Phoenix, AZ 85012 - Offline
51. Pilgrim Imaging, Inc., 1105 Butterworth Court, Stevensville, MD 21666 - Offline
52. Prairie Production Group, 111 West Goose Alley, Urbana, IL 61801 - Offline
53. Precision Tapes, 911 Second Street South, Minneapolis, MN 55415 - Offline
54. Producers Color Services, 24242 Northwestern Highway, Southfield, Michigan 48075 - Offline
55. Professional Reporters, 172 East State St, Suite 203, Columbus, OH 43215 - Real-time
56. Rapidtext, 230 Newport Center Dr., Suite 250, Newport Beach, 92660 - Real-time/Offline
57. Silent World Media Resources, 7400 W. Augusta Blvd, #24-S, River Forest, IL 60305 - Real-time/Offline
58. Southwest Captioning Service, 5000 Quorum Dr., Suite 377, Dallas, TX 75240 - Real-time/Offline
59. Southwest ReportersInc/Closed Captioning Services, LTD, 310 Fourth Ave. S., Suite 924, Minneapolis, MN 55414 - Real-time/Offline
60. Stoneware, Inc., 12337 Jones Rd., #200, Houston, TX 77070 - Real-time Software
61. Texas Closed Captioning, 611 West 14th St, Suite 200, Austin, TX - Real-time
62. The Caption Company, 1700 Water Place, Suite 300, Atlanta, GA 30339 - Real-time/Offline
63. US Senate Office of Captioning Services, Suite 54, The Capitol, Washington, DC 20510 - Real-time/Offline
64. Video Labs Corp., 15237 Display Court, Rockville, MD 20850 - Offline
65. Vidicopy Caption Center, 650 Vaqueros Ave, Sunnyvale, CA 94086 - Offline
66. Vitac, 312 Blvd. of the Allies, Pittsburg, PA 15222 - Real-time/Offline
67. Waga & Spinelli/Realtime Reporting Service, Four Becker Farm Rd, Roseland, NJ 07068 - Real-time/Offline
68. WRS Motion Picture & Video Lab, 1000 Napor Blvd, Pittsburg, PA 15205 - Offline
69. Xscribe Legal Systems, 6285 Nancy Ridge Dr., San Diego, CA 92121 - Real-time

This listing was prepared from information provided by Gallaudet University and the National Information Center on Deafness, and from surveys conducted by the National Association of the Deaf and by Self Help for Hard of Hearing People - California. Listing of an agency is provided for information purposes only and does not constitute an endorsement.